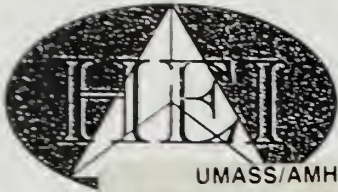


MASS. HS63.2:AI 74



Hygeia Environmental Inc.  
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Dedham, MA 02026  
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UMASS/AMHERST



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## AIRBORNE & SURFACE ASBESTOS TESTING

LEVERETT SALTONSTALL BUILDING  
100 CAMBRIDGE STREET  
BOSTON, MASSACHUSETTS 02108

March 1998

GOVERNMENT DOCUMENTS  
COLLECTION

AUG 31 1998

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## INTRODUCTION

Hygeia Environmental Inc. (HEI) was contracted by The Commonwealth of Massachusetts, Department of Public Health, Bureau of Environmental Health Assessment to provide asbestos air and surface testing, analysis and interpretation at the twenty-two story Leverett Saltonstall Building located at 100 Cambridge Street in Boston, Massachusetts. The project was initiated in response to occupant concerns and as a follow-up to previous asbestos air and surface testing conducted by parties other than HEI in June, 1997.

Industrial hygienists from Yee Consulting Group, Inc. (YCGI) under the direction of HEI, performed the testing for airborne and surface asbestos in selected locations throughout each floor of the building from March 2 through March 10, 1998. All on-site testing was conducted during occupied normal working hours.

The scope of work involved the following:

1. The collection of random air samples from each department of every floor of the building, with the exception of the mezzanine area, to be analyzed by Transmission Electron Microscopy (TEM);
2. The collection of random settled dust samples from various horizontal surfaces, excluding floors, from each department of every floor of the building, with the exception of the mezzanine area, to be analyzed by Polarized Light Microscopy (PLM);
3. To generate and present a written report detailing the methods of testing and analysis, as well as the results with comments and recommendations.

Analysis interpretation and report generation, as well as PLM analysis of surface samples for asbestos content was performed by Hygeia Environmental Inc., 35 Enterprise Drive, Dedham, Massachusetts, 02026, National Voluntary Laboratory Accreditation Program (NVLAP) Lab Code Number 102068-0, Massachusetts Analytical Laboratory Certification number AA000126. TEM analysis of air samples for asbestos content was performed by Scientific Laboratories, Inc., 117 East 30th Street, New York, New York, 10016, National Voluntary Laboratory Accreditation Program (NVLAP) Lab Code Number 101904-1, Massachusetts Analytical Laboratory Certification number AA000054.





## **METHODOLOGY**

### **Air sample collection and Transmission Electron Microscopy (TEM) Analysis**

Air samples were collected from each floor of the Leverett Saltonstall Building, with the exception of the mezzanine area. In addition, air samples were collected at the fresh air intake units on the roof and at the loading dock area. A minimum of four (4) samples, or one (1) air sample from each department occupying a floor, were collected from each floor of the building during normal working hours. Sampling locations were selected based upon areas of high traffic, ensuring active movement of ambient air.

Collection of air samples was accomplished utilizing EPA Standard Methods as detailed in 40 Code of Federal Regulations (CFR) Chapter I (1-1-87 edition) Part 763, Subpart E, Appendix A, in which a pump is used to draw a volume of air through a membrane filter at a known rate. Sampling pumps were pre-calibrated at a rate of approximately 10 liters per minute (lpm) and the sampling cassettes were placed at a height equivalent to the breathing zone of the occupants (approximately five feet from the floor). The air samples were run for approximately three (3) hours, with the flow rate checked at the completion of sampling to determine final air volumes. Air samples were collected in a 25 millimeter (mm) three-piece cassette with a 50 mm electrically-conductive extension cowl, containing a 0.45  $\mu\text{m}$  pore size mixed cellulose ester (MCE) membrane filter, a 5.0  $\mu\text{m}$  pore size MCE membrane backup filter (to serve as a diffuser) and a support backup pad. All air samples were prepared and analyzed in conjunction with TEM EPA Level II Protocol which provides the size of each structure counted, the fiber density and concentration, type of asbestiform material detected and the analytical sensitivity, which represents the concentration by the detection of one fiber in the TEM fiber count.

Air sample cassettes were labelled with sampling locations/descriptions as well as pre- & post- calibration flow rates and documented on chain of custody reports accompanying the samples. All air sample collection and analysis was performed by parties certified to perform asbestos air sampling and analysis.

### **Settled dust sample collection and Polarized Light Microscopy (PLM) Analysis**

Surface dust wipe samples were collected from representative surfaces from floors 1 through 22, with the exception of the mezzanine area. A minimum of six (6) wipe samples were collected from each floor and at least one (1) sample was collected from each department. Horizontal surfaces (excluding floors), approximately one foot square, with visible dust were selected for sampling locations.





### **Settled dust sample collection and Polarized Light Microscopy (PLM) Analysis (cont.)**

Dust samples were collected by vacuum sampling with a pre-calibrated sampling pump through a 25 millimeter (mm) three-piece cassette with a 50 mm electrically-conductive extension cowl, containing a 0.8 um pore size mixed cellulose ester (MCE) membrane filter and a support backup pad. All surface settled dust samples were analyzed by Polarized Light Microscopy (PLM) in accordance with U.S. Environmental Protection Agency (EPA) Test Method EPA/60/R-93/116, July, 1993 , "Method for the determination of asbestos in Bulk Building Materials".

Surface settled dust sample cassettes were labelled with sampling locations/descriptions as well as collection times and documented on chain of custody reports accompanying the samples. Although there is currently no protocol for the collection of settled dust samples to be analyzed for asbestos content, all analysis was performed by parties certified to perform asbestos bulk sample analysis.



## RESULTS & RECOMMENDATIONS

### Transmission Electron Microscopy Air Test Results

The comprehensive air sampling program which encompassed all twenty-two (22) floors of the Leverett Saltonstall Building and all intake/supply air locations, was comprised of one hundred fourteen (114) total air samples of which only one (1) sample detected any asbestos at all and that detection (1 structure, chrysotile) is far below any regulatory permissible levels.

The results of the air testing parallel those of TEM air samples collected and analyzed during the June 1997 testing performed by parties other than HEI (also only one location with a detection of only one asbestos structure).

Although the air tests are limited to the timeframe of collection, it does not appear that there was an asbestos airborne health hazard at the time(s) the tests were performed over the course of seven (7) days.

### Polarized Light Microscopy Settled Dust Test Results

A total of seventeen (17) of the overall one hundred fifty-two (152) horizontal surface dust locations sampled (11%) indicated the detection of minimal asbestos fibers on various surfaces tested throughout the building. In all cases where asbestos was encountered in the settled dust, it should be noted that the level(s) did not exceed trace amounts.

The overall settled dust testing indicated far less occurrences of asbestos than the samples collected and analyzed during the June 1997 testing performed by parties other than HEI (17 of 152 samples collected or approximately 11% in 1998, versus 52 of 184 samples collected or approximately 28% in 1997).

Hygeia Environmental Inc. strongly recommends the following:

1. Strictly adhere to the Operations & Maintenance (O & M) Program at all times, in particular regarding regular, documented wet cleaning and HEPA vacuuming by trained individuals familiar with the O & M Program;
2. Always conduct cleaning activities while areas are unoccupied;
3. Conduct random air and surface testing for asbestos on a regular basis, to ensure the integrity of "cleaning" techniques;
4. Do not disturb any confirmed asbestos containing materials (ACM);
5. Continue HVAC operation on 100% outside supply air (no recirculation);
6. Confirm the presence of any/all asbestos containing materials via a comprehensive building survey, if not completed (HEI had access to a partial December, 1989 survey only);

These recommendations are consistent with the EPA's document "Managing Asbestos in Place: A Building Owner's Guide to Operations and Maintenance Programs for Asbestos Containing Materials".



**Table I**  
**Airborne Asbestos Testing by TEM**





Table I  
Airborne Asbestos Testing By TEM

Leverett Saltonstall Building  
Boston, Massachusetts

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos Structures Detected</u>	<u>Analytical Sensitivity (struc/cc air)*</u>	<u>Structure Concentration (struc/cc air)*</u>	<u>Type of Asbestos</u>
HT-98-060693A	22	Dept. of Corrections On Column Adjacent Rm. 2250	0.0	0.0022	<0.0022	NSD
HT-98-060694A	22	Dept. of Corrections At Water Cooler Adj. Rm. 2227	0.0	0.0022	<0.0022	NSD
HT-98-060695A	22	Dept. of Corrections On Column Adj. Rm. 2215	0.0	0.0022	<0.0022	NSD
HT-98-060696A	22	ABC Commission Rm. 2204, On Column Adjacent Copier Area	0.0	0.0022	<0.0022	NSD
HT-98-060697A	21	Dept. Food & Agriculture Rm. 2103, On Column Adjacent Refrigerator	0.0	0.0021	<0.0021	NSD
HT-98-060698A	21	Dept. Food & Agriculture Rm. 2103, Adjacent D. Wepner's Office	0.0	0.0022	<0.0022	NSD
HT-98-060699A	21	Dept. of Corrections Rm. 2110, Adj. to Water Cooler	0.0	0.0023	<0.0023	NSD
HT-98-060700A	21	Dept. of Criminal Justice Room 2100, Adj. to D. Batton's Office	0.0	0.0022	<0.0022	NSD
HT-98-061166A	21	Office of Tech. Assistance Rm. 2109, Adjacent C. Macisac's Office	0.0	0.0022	<0.0022	NSD
HT-98-061167A	21	Gov. Highway Safety Bureau Rm. 2104; On Column Behind Receptionist Desk	0.0	0.0023	<0.0023	NSD
HT-98-060701A	20	Exec. Office of Environ. Affairs On Column Next to Receptionist's Office	0.0	0.0021	<0.0021	NSD





Table I--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos Structures Detected</u>	<u>Analytical Sensitivity (struc/cc air)*</u>	<u>Structure Concentration (struc/cc air)*</u>	<u>Type of Asbestos</u>
HT-98-060702A	20	Exec. Office of Environ. Affairs On Corner Column Next to Vacant Office	0.0	0.0022	<0.0022	NSD
HT-98-060703A	20	Division of Banks On Coat Closet By Side Exit	0.0	0.0022	<0.0022	NSD
HT-98-060704A	20	Division of Banks On Column Next to Receptionist Desk	0.0	0.0022	<0.0022	NSD
HT-98-060705A	19	Dept. of Environ. Management On Column Next to K. Sinclair's Office	0.0	0.0022	<0.0022	NSD
HT-98-060706A	19	Dept. of Environ. Management On Column Next to F. Kalifa's Office	0.0	0.0022	<0.0022	NSD
HT-98-060707A	19	Dept. of Fisheries/Wildlife/Law In Front of T. Paluso's Office	0.0	0.0022	<0.0022	NSD
HT-98-060708A	19	Dept. of Fisheries/Wildlife/Law On Wall Next to W. McCallum's Office	0.0	0.0022	<0.0022	NSD
HT-98-060709A	18	Div. of Housing & Community Development; On Column Behind Receptionist Desk	0.0	0.0022	<0.0022	NSD
HT-98-060710A	18	Div. of Housing & Community Development; On Book Shelf Next to J. Quinn's Office	0.0	0.0022	<0.0022	NSD
HT-98-060711A	18	Div. of Housing & Community Development; On Fan Next to Gandolfi's Office	0.0	0.0022	<0.0022	NSD
HT-98-060712A	18	Div. of Housing & Community Development; On Wall Next to T. Barlow's Office	0.0	0.0022	<0.0022	NSD
HT-98-060713A	17	Div. of Housing & Community Development; On Wall in Photo Copy Room	0.0	0.0022	<0.0022	NSD



*Table I--Continued*

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos Structures Detected</u>	<u>Analytical Sensitivity (struc/cc air)*</u>	<u>Structure Concentration (struc/cc air)*</u>	<u>Type of Asbestos</u>
HT-98-060714A	17	Div. of Housing & Community Development; On Wall Next to L. Carriero's Office	0.0	0.0021	<0.0021	NSD
HT-98-060715A	17	Div. of Housing & Community Development; On Wall Next to C. Kurzman's Office	0.0	0.0023	<0.0023	NSD
HT-98-060716A	17	Div. of Housing & Community Development; On Wall Next to Devigillio's Office	0.0	0.0022	<0.0022	NSD
HT-98-060717A	16	Div. of Capital Planning & Operations, On Corner Column By Copier Office	0.0	0.0022	<0.0022	NSD
HT-98-060718A	16	Div. of Capital Planning & Operations; On Filing Cabinet By E. Morse's Office	0.0	0.0022	<0.0022	NSD
HT-98-060719A	16	Labor Relations Commission On Copier Next to File Cabinet Cubicle	0.0	0.0022	<0.0022	NSD
HT-98-060720A	16	Labor Relations Commission Fax & Copier Cubicle	0.0	0.0022	<0.0022	NSD
HT-98-061170A	16	Human Resources Dept., Worker's Comp., Room 1602; On Column Next to Exit Door	0.0	0.0021	<0.0021	NSD
HT-98-061171A	16	Designer Selection Board Room 1610, On Shelf Next to Receptionist Desk	0.0	0.0025	<0.0025	NSD
HT-98-060805A	15	Division of Registration Rm. 1520, On Column Next to Reception Desk	0.0	0.0022	<0.0022	NSD
HT-98-060806A	15	Division of Registration Rm. 1509; On Wall in Hallway by Copier Machine	0.0	0.0022	<0.0022	NSD
HT-98-060807A	15	Division of Energy Resources Rm. 1500; Adjacent to Fax/Copier Rm.	0.0	0.0015	<0.0015	NSD



Table I--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos Structures Detected</u>	<u>Analytical Sensitivity (struc/cc air)*</u>	<u>Structure Concentration (struc/cc air)*</u>	<u>Type of Asbestos</u>
HT-98-060808A	15	Division of Energy Resources Rm. 1505; Adjacent to Fax/ Copier Rm.	0.0	0.0015	<0.0015	NSD
HT-98-060809A	14	Dept. of Environ. Management On Column Next to G. Benedick's Office	0.0	0.0015	<0.0015	NSD
HT-98-060810A	14	Dept. of Environ. Management On Column Next to M. Santana's Office	0.0	0.0014	<0.0014	NSD
HT-98-060811A	14	Cafeteria, Southeast Side By By Salad Bar	0.0	0.0016	<0.0016	NSD
HT-98-060812A	14	Cafeteria, Northeast Side Adjacent to Exit	0.0	0.0016	<0.0016	NSD
HT-98-061168A	14	Division of Registration Rm. 1406; On Fax Machine By T. McCarthy's Office	0.0	0.0023	<0.0023	NSD
HT-98-061169A	14	Dept. of Conservation Services Rm. 1405; On Desk By J. Robes's Desk	0.0	0.0022	<0.0022	NSD
HT-98-060813A	13	Minority & Women's Business On Wall in Fax & Copier Room	0.0	0.0015	<0.0015	NSD
HT-98-060814A	13	International Trade Commission On Closet By Receptionist Desk	0.0	0.0016	<0.0016	NSD
HT-98-060815A	13	Travel & Tourism On Column By Receptionist Desk	0.0	0.0017	<0.0017	NSD
HT-98-060816A	13	Energies Facilities Citing Board (DPU); Rm. 1304, at Receptionist Desk	0.0	0.0018	<0.0018	NSD
HT-98-061185A	13	Board of Real Estate & Appraisers Rm. 113; On Table Next to J. Autilio's Desk	0.0	0.0021	<0.0021	NSD





Table I--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos Structures Detected</u>	<u>Analytical Sensitivity (struc/cc air)*</u>	<u>Structure Concentration (struc/cc air)*</u>	<u>Type of Asbestos</u>
HT-98-061186A	13	Board of Public Accountancy Rm. 1315; On Desk Next to G. Williamson's Office	0.0	0.0022	<0.0022	NSD
HT-98-060817A	12	Dept. of Public Utilities Rm. 1200; On Column Next to Copier/Print Room	0.0	0.0014	<0.0014	NSD
HT-98-060818A	12	Dept. of Public Utilities Rm. 1210; On Column Next to Reception Area & Fax	0.0	0.0015	<0.0015	NSD
HT-98-060819A	12	Dept. of Public Utilities On Column Next to Fax/Reception	0.0	0.0016	<0.0016	NSD
HT-98-060820A	12	Dept. of Public Utilities Rm. 1203; On Column By File Cabinet Room	0.0	0.0016	<0.0016	NSD
HT-98-060821A	11	Inspector General's Office On Column Outside Conf. Rm. 13	0.0	0.0020	<0.0020	NSD
HT-98-060822A	11	Inspector General's Office Center of Rm. 1106A	0.0	0.0020	<0.0020	NSD
HT-98-060823A	11	Inspector General's Office Center of Rm. 1107A	0.0	0.0020	<0.0020	NSD
HT-98-060824A	11	Inspector General's Office Center of Rm. 1109A	0.0	0.0020	<0.0020	NSD
HT-98-061177A	11	Mass. Institute Social Economic Research; Rm. 1103, On Desk Map in Center Room	0.0	0.0019	<0.0019	NSD
HT-98-061178A	11	Dept. of Labor & Industry Lead/Asbestos; Rm. 1106, On Shelf in Front D. Urban's Office	0.0	0.0020	<0.0020	NSD
HT-98-061179A	11	Apprentice Training Office Rm. 1107, On Column Next to J. Rich's Office	0.0	0.0020	<0.0020	NSD



Table I--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos Structures Detected</u>	<u>Analytical Sensitivity (struc/cc air)*</u>	<u>Structure Concentration (struc/cc air)*</u>	<u>Type of Asbestos</u>
HT-98-061180A	11	Board of Conciliation/Arbitration On Hallway Wall By J. Hanson's Office	0.0	0.0020	<0.0020	NSD
HT-98-061181A	11	MA Office for Victim Assistance Rm. 1104; On Desk In the Copier/Kitchen Room	0.0	0.0021	<0.0021	NSD
HT-98-061182A	11	Gov. Commission on Mental Retardation; Room 1103, On Doorway Next to E. Micolonghi's Desk	0.0	0.0024	<0.0024	NSD
HT-98-060831A	10	Dept. of Veterans Services Rm. 1002, On Column Behind Receptionist's Desk	Sample Media Damaged, Recollected 3/6/98, #060904A.			
HT-98-060832A	10	Dept. of Veterans Services Rm. 1002, On Lektriever Shelf By R. Keefe's Office	0.0	0.0021	<0.0021	NSD
HT-98-060833A	10	Appellate Tax Board, Rm. 1010 On Wall Across From Hearing Rm. D	0.0	0.0024	<0.0024	NSD
HT-98-060834A	10	Office of Dispute Resolution Rm. 1005, On Column Next to E. Haffner's Office	0.0	0.0025	<0.0025	NSD
HT-98-060904A	10	Dept. of Veterans Services Rm. 1002, On Column Behind Receptionist's Desk (Retake)	0.0	0.0022	<0.0022	NSD
HT-98-061184A	10	Military Division Records Rm. 1000, On Column Next to Microphology Rm.	0.0	0.0022	<0.0022	NSD
HT-98-060835A	9	Administration Law Appeals Rm. 904; On Column Next to Receptionist Desk	0.0	0.0026	<0.0026	NSD
HT-98-060836A	9	Low Level Radioactive Waste Management; Rm. 903, On File Cabinets Next to K. Thompson's Office	0.0	0.0025	<0.0025	NSD



Table I--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos Structures Detected</u>	<u>Analytical Sensitivity (struc/cc air)*</u>	<u>Structure Concentration (struc/cc air)*</u>	<u>Type of Asbestos</u>
HT-98-060837A	9	Dept. of Revenue (TPA) Rm. 900, On File Cabinets Next to Computer Room	1.0	0.0027	0.0027	Chrysotile
HT-98-060838A	9	Civil Service Commission Rm. 909, On Wall of Office Supply/Copier Door	0.0	0.0027	<0.0027	NSD
HT-98-061175A	9	Governor's Office Rm. 900, On Wall Next to J. Kelly's Office	0.0	0.0022	<0.0022	NSD
HT-98-061176A	9	Sentencing Commission Rm. 902, On Column Next to Receptionist Desk	0.0	0.0018	<0.0018	NSD
HT-98-060839A	8	Department of Revenue Rm. 800, On Column By M. Dobrusin's Office	0.0	0.0018	<0.0018	NSD
HT-98-060840A	8	Department of Revenue Rm. 800, On Column By N. Hickey's Office	0.0	0.0020	<0.0020	NSD
HT-98-060841A	8	Department of Revenue Rm. 800, On Column By S. Moore's Office	0.0	0.0019	<0.0019	NSD
HT-98-060842A	8	Department of Revenue Rm. 800, On Column By M. Aoals' Office	0.0	0.0018	<0.0018	NSD
HT-98-060843A	7	Department of Revenue Rm. 704, On Column By Water Cooler/Open Area	0.0	0.0019	<0.0019	NSD
HT-98-060844A	7	Department of Revenue Rm. 706S, ASD Procurement; On Column By Copier	0.0	0.0018	<0.0018	NSD
HT-98-060845A	7	Department of Revenue Rm. 707N, Southwest Column By File Cabinets	0.0	0.0019	<0.0019	NSD



**Table I--Continued**

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos Structures Detected</u>	<u>Analytical Sensitivity (struc/cc air)*</u>	<u>Structure Concentration (struc/cc air)*</u>	<u>Type of Asbestos</u>
HT-98-060846A	7	Department of Revenue Rm. 707N, On Column Next to S Mach's Office	0.0	0.0019	<0.0019	NSD
HT-98-060847A	6	Department of Revenue Rm. 605N, On Column Next to Water Cooler/Open Area	0.0	0.0017	<0.0017	NSD
HT-98-060848A	6	Department of Revenue Rm. 608N, On Copier Machine Next to Filing Cabinet Cubicle	0.0	0.0021	<0.0021	NSD
HT-98-060849A	6	Department of Revenue Rm. 600S, On Column in Litigation Bureau Section	0.0	0.0019	<0.0019	NSD
HT-98-060850A	6	Department of Revenue Rm. 602S, On Column in Insp. Services Section	0.0	0.0020	<0.0020	NSD
HT-98-060884A	5	Department of Revenue Storage Area, Southwest Corner of Storage Area	0.0	0.0018	<0.0018	NSD
HT-98-060885A	5	Department of Revenue Storage Area, Northwest Corner of Storage Area	0.0	0.0020	<0.0020	NSD
HT-98-060886A	5	Department of Revenue Storage Area, Northeast Corner of Storage Area	0.0	0.0019	<0.0019	NSD
HT-98-060887A	5	Department of Revenue Storage Area, Southeast Corner of Storage Area	0.0	0.0020	<0.0020	NSD
HT-98-060888A	4	Department of Revenue Storage Area, Rm. 403S, Southwest Corner Column	0.0	0.0020	<0.0020	NSD
HT-98-060889A	4	Department of Revenue Storage Area, Rm. 403N, Northeast Corner Column	0.0	0.0021	<0.0021	NSD





**Table I--Continued**

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos Structure Detected</u>	<u>Analytical Sensitivity (struc/cc air)<sup>a</sup></u>	<u>Structure Concentration (struc/cc air)<sup>a</sup></u>	<u>Type of Asbestos</u>
HT-98-060890A	4	Department of Revenue Storage Area, Rm. 400N, Northwest Corner Column	0.0	0.0020	<0.0020	NSD
HT-98-060891A	4	Department of Revenue Storage Area, Rm. 400S, Southeast Corner Column	0.0	0.0022	<0.0022	NSD
HT-98-060892A	3	Department of Revenue Rm. 304N, On Column Next to E. Lombardu's Office	0.0	0.0015	<0.0015	NSD
HT-98-060893A	3	Department of Revenue Rm. 304A, On Column Next to S. Monahan's Office	0.0	0.0015	<0.0015	NSD
HT-98-060894A	3	Department of Revenue Rm. 304B, On Column Southwest Corner, Vacant Office	0.0	0.0015	<0.0015	NSD
HT-98-060895A	3	Department of Revenue Rm. 304, On Column in Southeast Corner Bookshelf	0.0	0.0015	<0.0015	NSD
HT-98-060896A	2	2nd Floor, Northeast Corner On Column	0.0	0.0022	<0.0022	NSD
HT-98-060897A	2	2nd Floor, Northwest Corner On Column	0.0	0.0022	<0.0022	NSD
HT-98-060898A	2	Department of Revenue Southwest Corner On Column	0.0	0.0023	<0.0023	NSD
HT-98-060899A	2	Department of Revenue Rm. 211 at Southeast Corner	0.0	0.0021	<0.0021	NSD
HT-98-060900A	1	Lobby, Next to Fleet ATM Machine, Southeast Corner	0.0	0.0020	<0.0020	NSD
HT-98-060901A	1	Lobby, Central Supply Office By the Loading Dock	0.0	0.0022	<0.0022	NSD
HT-98-060902A	1	Lottery Office, By the Cashier's Desk	0.0	0.0024	<0.0024	NSD



*Table I--Continued*

<u><i>Sample #</i></u>	<u><i>Floor</i></u>	<u><i>Location</i></u>	<u><i>Asbestos Structures Detected</i></u>	<u><i>Analytical Sensitivity (struc/cc air)*</i></u>	<u><i>Structure Concentration (struc/cc air)*</i></u>	<u><i>Type of Asbestos</i></u>
HT-98-060903A	1	Lobby, Concession Stand, On Column Behind Stand	0.0	0.0023	<0.0023	NSD
HT-98-061172A	1	Div. Standards Rm. 110, D. Smith's Water Cooler	0.0	0.0020	<0.0020	NSD
HT-98-061173A	1	Div. Housing Community Develop. Rm. 107, On Dickerson's Desk	0.0	0.0021	<0.0021	NSD
HT-98-061174A	1	Dept. of Revenue, Mailroom On Top of Computer in Back of Room	0.0	0.0021	<0.0021	NSD
HT-98-061183A	Base	Division of Banking, Archives Basement Storage Room By Column D5	0.0	0.0024	<0.0024	NSD
HT-98-061187A	Roof	Ambient Air, Air Handling Unit North Side of Roof	0.0	0.0023	<0.0023	NSD
HT-98-061188A	Roof	Ambient Air, Air Handling Unit East Side of Roof	0.0	0.0021	<0.0021	NSD
HT-98-061189A	Roof	Ambient Air, Air Handling Unit South Side of Roof	0.0	0.0022	<0.0022	NSD
HT-98-061190A	Roof	Ambient Air, Air Handling Unit West Side of Roof	0.0	0.0020	<0.0020	NSD
HT-98-061191A	Grnd	Ambient Air, Air Handling Unit Ground Unit Next to Dock Doors	0.0	0.0022	<0.0022	NSD

\*Asbestos Structures Per Cubic Centimeter of Air.

NSD = No Asbestos Structures Detected.



**Table II**  
**Settled Dust Asbestos Testing by PLM**







**Table II**  
**Settled Dust Asbestos Testing by PLM**

**Leverett Saltonstall Building**  
**Boston, Massachusetts**

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos</u>	<u>Type</u>
HW-98-060721A	22	ABC, Rm. 2204, Top of Filing Cabinet, Adjacent to P. Connelly	Not Detected	
HW-98-060722A	22	DOC, Top of File Cabinets Adjacent to Exit Doors	Not Detected	
HW-98-060723A	22	DOC, Top of Desk/Storage Kathy O'Connell	Not Detected	
HW-98-060724A	22	DOC, Top of Storage Cabinet Adjacent to Rm. 2246	<b>Present</b>	<b>Chrysotile</b>
HW-98-060725A	22	DOC, Top of Desk, Rm. 2238	Not Detected	
HW-98-060726A	22	DOC, Top of Book Case Law Library, #2203	Not Detected	
HW-98-060727A	21	DOC, Top of Desk Unit by Rm. 2110	Not Detected	
HW-98-060728A	21	DOC, Rm. 2109, Top of Filing Cabinet Adjacent to H. Tenney's Office	<b>Present</b>	<b>Chrysotile</b>
HW-98-060729A	21	DOC, Rm. 2104, Top of Kitchen Cabinet Adjacent to Reception Area	Not Detected	
HW-98-060730A	21	DFA, Rm 2103, Top of Filing Cabinet by S. Payne's Office	Not Detected	
HW-98-060731A	21	DFA, Top of Bookcase in Storage Closet	Not Detected	
HW-98-060732A	21	DFA, Top of Desk Adjacent to P. Welton's Office	Not Detected	



Table II--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos</u>	<u>Type</u>
HW-98-060733A	20	Division of Banks, On Filing Cabinet by C. Norba's Office	Not Detected	
HW-98-060734A	20	Division of Banks, On Commissioner's Conference Room Bookshelf	Not Detected	
HW-98-060735A	20	Division of Banks, On Vacant Southwest Corner Desk	Not Detected	
HW-98-060736A	20	Executive Office of Environmental Affairs, Top of S. Dias' Desk	Not Detected	
HW-98-060737A	20	Executive Office of Environmental Affairs, Top of Shelf in the Administrative Desk	Not Detected	
HW-98-060738A	20	Executive Office of Environmental Affairs, Empty Office Next to J. Denshaw's Office	Not Detected	
HW-98-060739A	19	Dept. Of Fisheries/Wildlife/Law, On Cabinet Locker by P. Giegus' Office	Not Detected	
HW-98-060740A	19	Dept. Of Fisheries/Wildlife/Law, Next to Computer Desk of D. Graskamp	Not Detected	
HW-98-060741A	19	Dept. Of Fisheries/Wildlife/Law, On File Cabinets by Greco's Office	<b>Present</b>	<b>Chrysotile</b>
HW-98-060742A	19	Dept. Of Environmental Management, Top of File Cabinets Next to G. Alito's Office	Not Detected	
HW-98-060743A	19	Dept. Of Environmental Management, Top of Book Shelf by C. Brooks' Office	Not Detected	



*Table II--Continued*

<u><i>Sample #</i></u>	<u><i>Floor</i></u>	<u><i>Location</i></u>	<u><i>Asbestos</i></u>	<u><i>Type</i></u>
HW-98-060744A	19	Dept. Of Environmental Management, Top of Desk by R. Hartzel's Office	Not Detected	
HW-98-060745A	18	D.H.C.D. Top of File Cabinets in V. Friedman's Office	Not Detected	
HW-98-060746A	18	D.H.C.D. Top of Cabinets by C. Racer's Office	Present	Chrysotile
HW-98-060747A	18	D.H.C.D. Top of Bookshelf Across from Closet and Exit	Present	Chrysotile
HW-98-060748A	18	D.H.C.D. Top of Bookshelf in D. Schmidt's Office	Not Detected	
HW-98-060749A	18	D.H.C.D. Top of File Cabinet by B. Brady's Office	Not Detected	
HW-98-060750A	18	D.H.C.D. Top of File Cabinet in C. Tempesta's Office	Not Detected	
HW-98-060751A	17	D.H.C.D. Office Ledge/Shelf of M. McGloughlin's Office	Not Detected	
HW-98-060752A	17	D.H.C.D. Top Middle File Cabinet in File Cubicle	Not Detected	
HW-98-060753A	17	D.H.C.D. Top of File Cabinet Across From R. Whitten's Office	Not Detected	



*Table II--Continued*

<u><i>Sample #</i></u>	<u><i>Floor</i></u>	<u><i>Location</i></u>	<u><i>Asbestos</i></u>	<u><i>Type</i></u>
HW-98-060754A	17	D.H.C.D. Top of Coat Closet Next to File Cabinet Cubicle	Present	Chrysotile
HW-98-060755A	17	D.H.C.D. Top of Desk Unit Shelf in the Information System Office	Not Detected	
HW-98-060756A	17	D.H.C.D. Top of Cabinet by J. Dimare's Desk	Not Detected	
HW-98-061268A	17	D.H.C.D., Rm. 1702 On Receptionist Desktop at Main Entrance	Not Detected	
HW-98-060757A	16	D.C.P.O. Top of File Cabinet in J. Cochran's Office	Present	Chrysotile
HW-98-060758A	16	D.C.P.O. Top of Bookshelf in S. Atwater's Office	Not Detected	
HW-98-060759A	16	Labor Relations Commission Top of Closet in the Office Supplies Closet	Not Detected	
HW-98-060760A	16	Labor Relations Commission Top of T.V./Shelf in M. Williams' Office	Not Detected	
HW-98-060761A	16	D.C.P.O. Top of Desk Area Across From Receptionist Desk	Not Detected	
HW-98-060762A	16	D.C.P.O. Top of Refrigerator in the Map File Room	Not Detected	





Table II--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos</u>	<u>Type</u>
HW-98-061062A	15	Division of Registration, Rm 1520 Desktop in Space Adjacent to M. Rheaume's Office	Not Detected	
HW-98-061063A	15	Division of Registration, Top of Window Blinds by L. Digirolamo's Office	Present	Chrysotile
HW-98-061064A	15	Division of Registration, Desktop Across From K. Perault's Office	Not Detected	
HW-98-061065A	15	Division of Energy Resource, Room 1506, J. McMahon's Office Desktop	Not Detected	
HW-98-061066A	15	Division of Energy Resource, Top of Book Shelf in Resource Information Library	Present	Chrysotile
HW-98-061067A	15	Division of Energy Resource, Top of Radiator in C. Connish's Office	Present	Chrysotile
HW-98-061267A	15	Nursing Division: Rm. 1519 Top of File Cabinet in File Archive Storage Room	Not Detected	
HW-98-061068A	14	Cafeteria, Top of Blinds Northwest of Cafeteria Windows	Not Detected	
HW-98-061069A	14	Cafeteria, Top of Blinds Northeast of Cafeteria Windows	Not Detected	
HW-98-061070A	14	Division of Registration, Room 1406, Top Shelf of M. Deveau's Desk	Not Detected	



Table II--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos</u>	<u>Type</u>
HW-98-061071A	14	Dept. of Environmental Management, Room 1404, Top of Storage Cabinets by Postage Meter Station	Not Detected	
HW-98-061072A	14	Dept. of Environmental Management, Top of Bookshelf in Conference Room	Not Detected	
HW-98-061073A	14	Dept. of Environmental Management, Top of Cabinet in C. Elbon's Office	Not Detected	
HW-98-061074A	13	Board of Public Accountancy, Room 1315, Top of File Cabinets by Main Hallway	Not Detected	
HW-98-061075A	13	Travel and Tourism, Rm. 1305, Top of Radiator Along Window Across From Receptionist Desk.	Not Detected	
HW-98-061076A	13	Travel and Tourism, Rm. 1305, Top of Food Shelf in Copier Room	Not Detected	
HW-98-061077A	13	International Trade Commission, Top of Middle Bookshelf in Library	Not Detected	
HW-98-061078A	13	W.M.B.A., Rm. 1303, Top of Desk in L. Roberts' Office	Not Detected	
HW-98-061079A	13	W.M.B.A., Rm. 1303, Top of Cabinet Across from D. Villeneuve's Office	Not Detected	
HW-98-061080A	13	W.M.B.A., Rm. 1303, Top of Bookcase in Law Library	Not Detected	



Table II--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos</u>	<u>Type</u>
HW-98-061081A	13	W.M.B.A., Rm. 1303, Top of File Cabinets in Main File Room	Not Detected	
HW-98-061082A	12	Dept. of Public Utilities, Top of Storage Cabinets by the Southeast Corner Column	Not Detected	
HW-98-061083A	12	Dept. of Public Utilities, Top of Radiator by the Printer Room	Not Detected	
HW-98-061084A	12	Dept. of Public Utilities, Top of Storage Cabinets Adjacent to D. Singh's Office	Not Detected	
HW-98-061085A	12	Dept. of Public Utilities, Rm. 1208, Top of Storage Cabinets in Center of Room	Not Detected	
HW-98-061086A	12	Dept. of Public Utilities, Room 1210, Top of Radiator in J. Boll's Office	Not Detected	
HW-98-061087A	12	Dept. of Public Utilities, Room 1210, Top of Bookshelf in J. Besser's Office	Not Detected	
HW-98-061266A	12	Dept. of Public Utilities, Room 1206, Top of Storage Cabinets in S. Mani's Office	Not Detected	
HW-98-061088A	11	Inspector General, Windowsill of Helen's Office	Not Detected	
HW-98-061089A	11	Inspector General, Windowsill of Wendy's Office	Not Detected	



Table II--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos</u>	<u>Type</u>
HW-98-061090A	11	Inspector General, Top of Bookcase in Neil's Office	Not Detected	
HW-98-061091A	11	Inspector General, Windowsill of Bob's Office	Not Detected	
HW-98-061092A	11	Inspector General, Computer Table in Patrice's Office	Not Detected	
HW-98-061093A	11	Inspector General, Top of Filing Cabinet in Diane's Office	Not Detected	
HW-98-061094A	11	Inspector General, Top of Bookcase in Rhonda's Office	Not Detected	
HW-98-061095A	11	Inspector General, Top of Bookcase in Library	Not Detected	
HW-98-061096A	11	Inspector General, Bookcase Adjacent to Door, Room 1109	<b>Present</b>	<b>Chrysotile</b>
HW-98-061097A	11	OCC-CAT, Room 1107A J. Daprizio's Desktop	Not Detected	
HW-98-061098A	11	OCC-CAT, Room 1107A Top of Radiator in R. Schoenfeld's Office	Not Detected	
HW-98-061099A	11	OCC-CAT, Room 1106A Top of Blinds in Conference Room.	<b>Present</b>	<b>Chrysotile</b>
HW-98-061100A	11	D.L.I. Top of Bookshelf in B. Prezion's Office	Not Detected	





Table II--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos</u>	<u>Type</u>
HW-98-061101A	11	D.L.I. Top of Bookcase, Jill Nelson-Dowd	Not Detected	
HW-98-061102A	11	D.L.I. Top of Radiator in J. Dello-Russo's Office	Not Detected	
HW-98-061103A	11	D.L.I. Top of Radiator in C. Tyson's Office	Not Detected	
HW-98-061104A	11	D.L.I. Windowsill of E. Cronnan's Office	Not Detected	
HW-98-061105A	11	D.L.I. Top of Radiator in Sonia Bryan's Office	Not Detected	
HW-98-061265A	11	MA Office for Victim Assistance M. Brown's Office Desktop	Not Detected	
HW-98-061106A	10	Office of Dispute Resolution Room 1005, Top of Cabinet in Executive Director's Office	Not Detected	
HW-98-061107A	10	Hearing Room D, Top of Bookcase in Library	Not Detected	
HW-98-061108A	10	Office of Dispute Resolution Top of File Cabinet in File Room	Not Detected	
HW-98-061109A	10	Military Division of Records; Room 1000, Top of Card Cabinets	Not Detected	
HW-98-061110A	10	Department of Veteran's Services Room 1002, Top of File Cabinets by E. Adalian's Office	Not Detected	



Table II--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos</u>	<u>Type</u>
HW-98-061111A	10	Department of Veteran's Services, Room 1002, Top of Shelf in Storage Room	Not Detected	
HW-98-061112A	9	Administrative Law of Appeals, K. Long's Computer Desktop	Not Detected	
HW-98-061113A	9	Administrative Law of Appeals, Top of Bookshelf Adjacent to K. Fletcher's Office	Not Detected	
HW-98-061114A	9	Civil Service Commission, Room 907N, Top of Storage Cabinet Adjacent to D. Jenkin's Office	Not Detected	
HW-98-061115A	9	Civil Service Commission, Room 909N, Top of Storage Cabinet by K. Tivnaw's Office	Not Detected	
HW-98-061116A	9	Department of Revenue, Room 900. Top of Blinds in Main Conference Room.	Not Detected	
HW-98-061117A	9	L.L.R., Room 903, Top of Storage Cabinet Across From Reception Desk.	Not Detected	
HW-98-061264A	9	Governor's Sentencing Commission, Room 902, F. Carney's Office Computer Desk.	Not Detected	
HW-98-061118A	8	Department of Revenue, Room 806N, Top of File Cabinet Near Receptionist's Desk	Not Detected	
HW-98-061119A	8	Department of Revenue, Top of Bookshelf in A. Murphy's Office	Not Detected	



*Table II--Continued*

<u><i>Sample #</i></u>	<u><i>Floor</i></u>	<u><i>Location</i></u>	<u><i>Asbestos</i></u>	<u><i>Type</i></u>
HW-98-061120A	8	Department of Revenue Top of File Cabinet by R. Nevin's Office	Not Detected	
HW-98-061121A	8	Department of Revenue, Top of Cabinet by D. Cella's Office	Not Detected	
HW-98-061122A	8	Department of Revenue, Top of File Cabinet Outside N. Hickey's Office	Not Detected	
HW-98-061123A	8	Department of Revenue, Top of File Cabinet in N. Hickey's Office	Not Detected	
HW-98-061124A	7	Department of Revenue, Top of File Cabinets Adjacent to R. Barker's Office	Not Detected	
HW-98-061125A	7	Department of Revenue, Top of Radiator at K. Ross's Office	Not Detected	
HW-98-061126A	7	Department of Revenue, Top of Radiator at SE Corner	Present	Chrysotile
HW-98-061127A	7	Department of Revenue, Top of Storage Cabinet at SW Corner	Not Detected	
HW-98-061128A	7	Department of Revenue, Top of Storage Cabinet by Rerrie's Office	Not Detected	
HW-98-061129A	7	Department of Revenue, Top of File Cabinet Adjacent to Kitchenette	Not Detected	



Table II--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos</u>	<u>Type</u>
HW-98-061110A	6	Department of Revenue, Top of Storage Cabinet in File Cubicle	Not Detected	
HW-98-061131A	6	Department of Revenue, Top of Radiator in NW Corner	Not Detected	
HW-98-061132A	6	Department of Revenue, Top of File Cabinet Behind Receptionist's Desk	Not Detected	
HW-98-061133A	6	Department of Revenue, Top of Radiator in the SW Corner	Not Detected	
HW-98-061134A	6	Department of Revenue, Top of the File Cabinet Near Water Cooler	Not Detected	
HW-98-061135A	6	Department of Revenue, Top of Storage Cabinet next to Receptionist Desk	Not Detected	
HW-98-061136A	5	Department of Revenue, SE Corner Radiator	Not Detected	
HW-98-061137A	5	Department of Revenue, NE Corner Radiator	Not Detected	
HW-98-061138A	5	Department of Revenue, SW Corner of Radiator	Not Detected	
HW-98-061139A	5	Department of Revenue, NW Corner Radiator	Not Detected	
HW-98-061140A	5	Department of Revenue, NE Side Radiator, 5th Window	Not Detected	
HW-98-061141A	5	Department of Revenue, SE Side Radiator, 8th Window	Not Detected	





Table II--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos</u>	<u>Type</u>
HW-98-061142A	4	Department of Revenue, Top of Radiator Facing McCormick	Not Detected	
HW-98-061143A	4	Department of Revenue, Top of Radiator Facing Bowdoin Street	Present	Chrysotile
HW-98-061144A	4	Department of Revenue, Top of Radiator Facing Cambridge Street	Not Detected	
HW-98-061145A	4	Department of Revenue, Top of Radiator Facing Cambridge Street	Not Detected	
HW-98-061146A	4	Department of Revenue, Top of Radiator at SE Corner	Present	Chrysotile
HW-98-061147A	4	Department of Revenue, Top of Radiator at SW Corner	Not Detected	
HW-98-061148A	3	Department of Revenue, Top of Radiator at S. Dolan's Office	Not Detected	
HW-98-061149A	3	Department of Revenue, Top of Radiator at R. Sciarappa's Office	Not Detected	
HW-98-061150A	3	Department of Revenue, Top of Radiator at R. McArdle's Office	Not Detected	
HW-98-061151A	3	Department of Revenue, Top of Radiator at D. Murphy's Office	Not Detected	
HW-98-061152A	3	Department of Revenue, Top of Radiator at the SW Corner	Present	Chrysotile



Table II--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos</u>	<u>Type</u>
HW-98-061153A	3	Department of Revenue, Top File Cabinet at the SE Corner	Present	Chrysotile
HW-98-061154A	2	Lobby, Top of Voting Machine, NE Corner	Not Detected	
HW-98-061155A	2	Lobby, Roof Divider Top, NW Corner	Not Detected	
HW-98-061156A	2	Top of Storage Cabinet in Storage Room, NE Corner of Lobby	Not Detected	
HW-98-061157A	2	Empty Conference Room, Rm 212 Top of Storage Cabinet.	Not Detected	
HW-98-061158A	2	Conference Room, Rm 212 Door Platform	Not Detected	
HW-98-061159A	2	2nd Floor Men's Room, Top of Shelf, Custodian's Closet	Not Detected	
HW-98-061160A	1	Lobby, SE Corner Top of Fed Ex Drop Off	Not Detected	
HW-98-061263A	1	Standards/Measures Office On Side Table with Various Weights and Scales	Not Detected	
HW-98-061161A	1	Lobby, NE Corner Concession Stand, Refrigerator Top	Not Detected	
HW-98-061162A	1	Carpenter's Shop, Room 100 Top of Storage Cabinet	Not Detected	
HW-98-061163A	1	Central Supply Office Top of Refrigerator	Not Detected	



Table II--Continued

<u>Sample #</u>	<u>Floor</u>	<u>Location</u>	<u>Asbestos</u>	<u>Type</u>
HW-98-061164A	1	Lottery Office Top of Ticket Machine	Not Detected	
HW-98-061165A	1	Lottery Office Top of Cashier's Desk	Not Detected	

